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Faculty Working Papers

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Informational Social Influence and Product Evaluation [1]

by

Joel B. Cohen and Ellen Golden

For many, the application of social influence research is limited to rather specialized settings (e.g. formal group interaction or structured authority relationships) or tied to the notion of conformity or conformity-proneness. This view tends to understate the pervasiveness of social influence and its importance to human behavior. Informational social influence, especially, has not received its due consideration in many settings and under many circumstances in which it is likely to be a significant factor in decision-making and overt behavior.

Product evaluation may prove to be an especially fertile setting within which informational social influence is likely to operate. Products are typically evaluated relative to a number of competing needs and demands on individual and family resources. Resulting questions of value judgements, which are themselves not completely reducible to objective evidence and matters of fact, are without doubt subject to social frames of reference. "Appropriate" or "correct" behavior is such, in large part, because of the evidence we have that others agree with or accept the behavior. Aside from questions of value, the very complexity of product evaluation itself (e.g. the number of brands and models, the

claims and counterclaims, the difficulty of obtaining objective evidence) and the time it would take to resolve the many uncertainties combine to favor the utilization of information from others.

The study to be reported focuses specifically on three potential sources of influence on a consumer's judgment in social situations: (1) the uniformity of relevant information provided by others (2) the extent to which one's judgment (evaluation) will be known to others and (3) one's interpersonal response orientations.

Many of the early "conformity" studies failed to distinguish clearly between two processes of social influence whose differences are of considerable importance (Asch, 1958; Crutchfield, 1955; Sherif, 1958). The first, "normative social influence," refers to influence to conform with certain expectations held by others. The second, "informational social influence," refers to influence to accept information provided by others which is taken as evidence about reality.[2] The former might be termed "conformity" in the sense that one accepts influence either to establish or enhance a favorable reward-punishment relationship with certain individuals or because of a desire to identify with such individuals or their points of view (Kelman, 1961). The second, however, is not true conformity, in the sense that a lack of information, an ambiguous situation, or premature demands for action or decision lead the person to substitute seemingly competent information from others

for his own search for direct evidence. Indeed direct, physical and objective evidence regarding the "truth" of many of our beliefs (and especially values) is simply not easily obtainable. For many of these our primary point of reference may be other individuals or groups, and our reality, therefore, is socially as well as physically determined.

Under either informational or normative conditions, the uniformity of information provided by others regarding the relative quality of a product should have a direct bearing on consumers' evaluations. This should be especially true when (1) quality is somewhat ambiguous because of a lack of clear standards, and (2) one's own ability to discriminate is not thought satisfactory. Venkatesan (1966) demonstrates that social influence is operative in this type of product evaluation situation. We prefer to characterize the process he studied not as "conformity to group pressure" (as he has done) but rather as "informational social influence."

Stafford (1966) provides an interesting picture of informal group influence on brand preferences within sociometrically determined "natural" groups. Here the setting is conducive to both influence processes, although the relative strength of normative influence would almost certainly be greater for an object or issue of greater relevance to the group (around which norms could develop) than bread.

In order to more adequately study conditions underlying the acceptance of social influence, it is necessary to go beyond a one-way flow of information and influence (from the group to the individual). Such a conceptualization is too narrow and does not consider others' subsequent reactions to the behavior of the individual, especially the extent of his acceptance or rejection of group influence. It seems especially important to separate out the effects of factors which influence public acceptance of information from those which influence adherence to such information. Adherence should follow directly from uniformity, for example, under conditions supportive of informational social influence. If an individual has merely expressed public acceptance (under conditions favoring normative influence), his perception that others will be able to maintain surveilance and impose sanctions may be necessary conditions for adherence. In the classic conformity studies, either subjects' evaluations or behaviors were perceived to be visible to others. In this study we will specifically examine the importance of this factor under informational social influence conditions.

Interpersonal response orientations refer to people's predominant modes of response to others. They can be thought of as interpersonal aspects of personality. Using Karen Horney's tripartite classification of moving towards, against or away from others, Cohen (1967) developed the CAD scale to measure the extent

of a person's corresponding compliant, aggressive and detached interpersonal orientations. As predicted, compliant people were more susceptible to information regarding group judgments than were aggressive people, although (at least in the absence of group pressure and overt influence attempts) no significant differences in detached orientations among high and low opinion changers were observed (Campbell, 1966).

Most people seem to have a reasonable balance among the orientations so that although one is usually preferred (more consistent with other values, more often reinforced in social interaction) the person remains flexible to the demands of the situation. Even a highly aggressive person may refrain from aggressive behavior under certain physical or moral constraints. To the extent that more specific situational influences (such as the substantive issues, objects, who the other people are, task requirements, etc.) encourage the expression of individual differences, we should find some correspondence between behavior and preferred modes of relating to others. Accordingly, interpersonal response orientations were an additional factor incorporated into the design of the study.

METHOD

Each of three groups of 48 introductory marketing students at the University of Illinois was randomly assigned to four treatment conditions to form three blocks of 12 S's within each.

Treatments are summarized in Table 1. Each of the three groups was made up entirely of individuals scoring at least one standard deviation above the sample mean on one of the traits measured by the CAD scale, a set of 35 items each calling for a response relative to the desirability of engaging in particularly characteristic types of interpersonal behavior (Cohen, 1967).

Insert Table 1 About Here

Students were given to believe that a marketing research project was being conducted to predict the likely success of a new coffee product recently introduced in the area. Under both the high uniformity-visible and low uniformity-visible conditions S's were individually shown a rating board containing other S's evaluations of the coffee they were instructed to taste and evaluate. The rating board was a large and attractive piece of heavy cardboard subdivided into five general categories for evaluation (from "worst I've ever tasted" to "best I've ever tasted") each, in turn, broken down into three degrees of favorability - or 15 response categories in all. Under each category were a set of small nails, name tags being hung on a predetermined number, the effect in total looking very much like a frequency distribution histogram. Name tags (many similar to but none identical with other S's names) were written in a large number of handwriting styles and with different pens and colors of ink.

Each S in these two treatments saw 16 name tags representing others' prior evaluations of the coffee. In both treatments, the

modal "evaluation" (preset by E) was "12" (compared to the control group's mean evaluation of 8.5). We wished to produce a reasonable discrepancy for those whose own estimates were at or several rating points above the mean, yet without danger of a ceiling effect.

In the high uniformity condition 9 of the name tags were placed on the modal rating with the remaining 7 concentrated as follows: 1 on "10", 2 on "11", and 4 on "13". In the low uniformity condition 5 name tags were placed on the modal position with the others as follows: 1 on "5", 1 on "7", 2 on "8", 1 on "9", 1 on "10", 2 on "11", and 3 on "13". Thus, each S in the high uniformity condition was exposed to the same information (without risk of bias by confederates' actions) with a substantially greater consensus than S's in the low uniformity condition. Any number of variations in the dispersion of others' evaluations (including the identification of certain S's) could be used to easily vary and standardize the information provided under possible treatments, however, only the two variations discussed above were incorporated into this study.

After tasting the coffee, each S in these two conditions wrote his name on a tag and placed it on the board. Since the name tag would always be placed last in any column chosen, S's could not reasonably expect their evaluations to be hidden from others no matter where it was placed. After each S left the room, E removed his name tag from the board.

The third treatment, the no information-visible condition, was used to separate out the effects of information presumably provided by others from the expectation that others will know how one has evaluated the product. As such this provides a control group for the factor "uniformity of information" as well as a direct comparison with the no information-no visibility control group (treatment four).[3] S's in treatment three were given to believe that theirs was the first name tag to be placed on the chart for a "new group of tasters". E explained simply that the procedure was to let the board get fairly well filled, copy a summary of the evaluations, take the tags off and start all over again. This procedure was used for each of the 36 S's in this condition.

The fourth treatment utilized a rating form identical in scale to the rating board. Evaluations of the coffee were obtained in the absence of information from others. The rating form was simply taken from S's and placed in a stack.

In total, the methodology was designed to create a setting in which a small-to-moderate amount of uncertainty regarding a "correct" product evaluation could be tied to variations in informational input from others. No attempt was made to build in factors which would tend to produce normative influences. In such a setting it was hypothesized that informational social influence would be accepted for its own sake and not for reasons of conformity.

RESULTS

A 4 x 3 factorial analysis of variance (treatments by interpersonal orientations) was run. Differences in treatment effects were significant and in the predicted direction (Table 2).

Insert Table 2 about here

Analysis of the significant treatment effect by orthogonal trend components revealed that 99.01 percent of the variation in evaluation by treatments (SS treatments = 99.69) may be predicted from a linear regression equation (Winer, 1962). This tends to indicate (1) that the acceptance of social influence was a linear function of the degree of uniformity or consensus in the information presented, and (2) that no complex interaction between uniformity and visibility was present. Further analysis of these interrelationships was conducted using an orthogonal decomposition of the treatment sum of squares and comparisons among treatment sums (Winer, 1962). Table 3 summarizes the four comparisons used to separate out the effects of uniformity and visibility. Comparison 1 in Table 3, for example, looks at the following weighted linear comparison of treatment sums: $[(T_1 + T_2 + T_3)/3] - T_4$. Approximately 55 percent of the variation among treatments (54.19/99.69) is due to the difference between the control group (no

Insert Table 3 about here

information-no visibility) and the other treatments combined.

To what extent is this difference due to the information seemingly provided by other S's or to the known visibility of one's own evaluation? If the latter, then the informational social influence hypothesis (i.e. influence is accepted largely because it reduces uncertainty) cannot be supported since S's would appear to be more concerned with anticipating others' positive or negative reactions. F ratios on comparison sums of squares (e.g. $SSc_1/MSerror$) permitted more definitive answers to these questions.

Comparison 2 (Table 3) reveals a significant difference (and in the predicted direction) between the two groups provided with information regarding "others'" evaluations and the group not given such information, all three groups believing their evaluations to be visible to others. Comparison 4, on the other hand, indicates that visibility, per se, is not a significant source of variation when information is held constant. Approximately 30 percent of the variation among treatments is due to comparison 2, while only 8 percent is due to comparison 4. We must conclude that visibility is not a significant feature of this social influence situation in which informational social influence appears to predominate over normative social influence.

Comparison 3 indicates that acceptance of social influence is not significantly greater under high uniformity than under low uniformity, although results are in the predicted direction (Table 1).

Interpersonal response orientations did not prove to be a significant source of variation, although the direction of results

fits the underlying model. Compliant S's were the most favorable in their product evaluations ($\overline{X}$ = 9.96). Aggressive S's were least favorable ($\overline{X}$ = 9.25), while detached S's were intermediate ($\overline{X}$ = 9.48).

DISCUSSION

These results provide strong confirmation that social influence is operative in situations not characterized by strong normative pressures (cohesive groups, relevant issues, established norms, sanctions, etc.) Buying decisions, even when the product or brand being judged is not novel or unfamiliar, seem to be characterized by uncertainty. This may stem, in part, from a lack of objective standards and a lack of reliable comparative brand information. Such conditions should tend to produce a heightened readiness to respond to apparently competent information from others.

The absence of a more pronounced difference between high and low uniformity treatment groups is somewhat surprising. Our manipulation of uniformity was tied to a range of S's coffee evaluations, however, rather than markedly contrasting conditions of unanimous agreement among others versus sharp disagreement. Uniformity, in this study, is a somewhat more involved notion than in most similar studies. In many previous studies, information from others was uniform if it was absolutely identical (i.e. each confederate gave the exact same answer or "caused" the exact same light to

go on). Here, the focus is on product evaluation which can only be forced into a similar conception of uniformity either by collapsing the evaluation task into two or three categories (so as to make perfect consensus believable) or by telling the subject you are providing him with consensus data (e.g. group means).

In reality, of course, it is seldom that no variation exists in the advice and opinions others so thoughtfully supply. We do not move instantly from uncertainty to certainty by virtue of the information received. There is doubt and disagreement, and it may be of some value for researchers to more realistically deal with variance in information, specifically in so far as learning how consumers respond to it. It may be that consumers (or at least our S's) tend to rely on specific information aggregation schemes such as a modal evaluation or some other simplifying rule of thumb in dealing with the results of diversity in product ratings. Since the mode was the same in both the high uniformity and low uniformity conditions (12), we might possibly have provided much less of a difference in the two uniformity conditions than was desirable for maximal effect upon evaluations.

The failure of interpersonal response traits to be a more discriminating predictor variable may, to a large extent, be an artifact of the methodology employed. We note with interest that compliant S's gave evaluations closest to the mode, hence more similar to their peers. Aggressive S's were furthest from the mode, thus consistent with a movement "against" the typical response.

Detached S's were intermediate, neither responding strongly pro norm nor counter norm. It may be recalled that the methodology minimized social interaction and direct influence attempts, two of the factors in social influence situations which one would expect to be most strongly related to this type of treatment of individual differences.

CONCLUSION

S's asked to evaluate an unknown brand of coffee were significantly influenced by rating distributions (other S's evaluations) of both relatively high and low concentration (uniformity). There was some tendency for acceptance of the modal evaluation to be greater under conditions of higher uniformity. The difference between high and low uniformity conditions was, however, not significant. This may have been due to the uniformity manipulations which dealt more with degree of dispersion than more absolute dichotomies. Perceived visibility of S's subsequent ratings was not a significant factor leading to the acceptance of information from others. Differences in S's interpersonal orientations did not prove to be a significant factor, although results were in the predicted direction.

Our data suggest that even for a familiar product whose taste was the sole criterion for evaluation, individual judgments may be modifiable by the perceived evaluations of others. No attempt was made to convey information of a more expert nature or in any way encourage S's to feel the information was somehow reliable or

accurate. Thus, even under minimal conditions for social influence, such information had a significant effect on product evaluation. These results are interpreted as supporting the pervasiveness and significance of informational social influence even when conditions favoring normative compliance are largely absent.

REFERENCES

Asch, S. E. "Effects of group pressure upon the modification and distortion of judgments," in E. E. Maccoby, T. M. Newcomb, and E. L. Hartley, (Eds.), Readings in Social Psychology (Third Edition), New York: Holt, Rinehart and Winston, 1958.

Campbell, R. "The utilization of expert information in business forecasting," Unpublished doctoral dissertation, Graduate School of Business Administration, University of California, Los Angeles, 1966.

Cohen, J. B. "An interpersonal orientation to the study of consumer behavior," Journal of Marketing Research, 4 (August 1967), 270-278.

Crutchfield, R. S. "Conformity and character," American Psychologist, 10 (1955), 191-198.

Deutsch, M. and Gerard, H. B. "A study of normative and informational social influence upon individual judgment," Journal of Abnormal and Social Psychology, 51 (1955), 629-636.

Jones, E. E. and Gerard, H. B. Foundations of Social Psychology, New York: John Wiley and Sons, Inc. 1967.

Kelman, H. C. "Processes of opinion change," Public Opinion Quarterly, 25 (1961), 57-78.

Sherif, M. "Group influences upon the formation of norms and attitudes," in E. E. Maccoby, et. al., Readings in Social Psychology, op. cit.

Stafford, J. E. "Effects of group influence on consumer brand preferences," Journal of Marketing Research, 3 (February 1966), 68-75.

Venkatesan, M. "Consumer behavior: conformity and independence," Journal of Marketing Research, 3 (November 1966), 384-387.

Winer, B. J. Statistical Principles in Experimental Design, New York: McGraw-Hill Book Co., 1962.

FOOTNOTES

[1] Appreciation is expressed to Raymond Suh for his help on the study. Requests for reprints should be sent to Joel B. Cohen, Department of Business Administration, University of Illinois at Urbana-Champaign, Urbana, Illinois 61801.

[2] We are relying most strongly here on the distinction made by Deutsch and Gerard (1955), although a number of researchers have proposed fairly similar approaches. See Jones and Gerard (1967) for a particularly insightful discussion of these as social comparison processes, especially in the context of "information dependence" and "effect dependence."

[3] A before-after design with an initial private rating and one after seeing others' ratings would have permitted equivalent comparisons. The present design was chosen (1) to avoid sensitizing S's to the fact that the information is "supposed to" make a difference in your evaluation and (2) to prevent post-committment dissonance from influencing the results.

Table 1

Mean Values Under Each Treatment Condition

Treatment		
Uniformity in Others' Evaluations	Visibility of S's Behavior	Mean Product Evaluation
High uniformity	Visible	10.75
Low uniformity	Visible	9.83
No information	Visible	9.17
No information	Not visible	8.50

Table 2

Analysis of Variance

Source of variation	df	M.S.	F
Treatments	3	33.23	4.65*
Interpersonal orientations	2	6.27	.88
Interaction	6	2.55	.36
Error	132	7.15	

*p < .005

Table 3

Comparisons On Treatment Sums

	High uniformity -visible	Low uniformity -visible	No information -visible	No information -not visible	SS	F
Σ	387	354	330	306		
C_1	1	1	1	-3	54.19	7.58**
C_2	1	1	-2	0	30.38	4.25*
C_3	1	-1	0	0	15.13	2.12
C_4	0	0	1	-1	8.00	1.12

*$p<.05$

**$p<.01$

A GENERAL ECONOMIC MODEL OF CONTRACTUAL INCENTIVES

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